Michigan Department of Transportation
5100B (07/07)

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

Exhibit B

MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)
Michele Mueller	TBA	TBA

DESCRIPTION IF NO JN/CS
Metro and Grand Region Testbeds

MDOT PROJECT MANAGER: Check all items to be included in RFP.

WHITE = REQUIRED
GRAY SHADING = OPTIONAL

Check the appropriate Tier in the box below

☐ **TIER I ($25,000-$99,999)**	☐ **TIER II ($100,000-$250,000)**	☒ **TIER III (>$250,000)**	**CONSULTANT:** Provide only checked items below in proposal.
☐	☐	☒	Understanding of Service
☐	☐	☒	*Innovations*
☐	☐	☒	*Safety Program*
N/A	☐	☒	Organization Chart
☐	☐	☒	Qualifications of Team
☐	☐	☒	Past Performance
Not required as part of official RFP	Not required as part of official RFP	☐	Quality Assurance/Quality Control
☐	☐	☒	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	☐	Presentation
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT forms not counted) **(No Resumes)**	7 pages (MDOT forms not counted)	19 pages (MDOT forms not counted)	Total maximum pages for RFP **not including key personnel resumes**

REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest "Consultant/Vendor Selection Guidelines for Service Contracts" and "Guideline for Completing a Low Bid Sheet(s)", if a low bid is involved as part of the selection process. **Referenced Guidelines are available on MDOT's website under Doing Business > Vendor/Consultant Services >Vendor/Consultant Selections.**

RFP SPECIFIC INFORMATION

☑ BUREAU OF HIGHWAYS ☐ BUREAU OF TRANSPORTATION PLANNING ** ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☑ NO ☐ YES DATED _____ THROUGH _____

☑ **Prequalified Services** – See page 3 of the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalified Services** - If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, if overhead is not audited, is on file with MDOT's Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed.

☑ **Qualifications Based Selection** – Use Consultant/Vendor Selection Guidelines

For all Qualifications Based Selections, the section team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

****For RFP's that originate in Bureau of Transportation Planning only**, a priced proposal must be submitted at the same time as, but separate from, the proposal. Submit directly to the Contract Administrator/Selection Specialist, Bureau of Transportation Planning **(see address list, page 2)**. The priced proposal must be submitted in a sealed envelope, clearly marked **"PRICE PROPOSAL."** The vendor's name and return address MUST be on the front of the envelope. The priced proposal will only be opened for the highest scoring proposal. Unopened priced proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your priced proposal being opened erroneously by the mail room.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualifications Review / Low Bid** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted and post the date of the bid opening on the MDOT website. The notification will be posted at least two business days prior to the bid opening. Only bids from vendors that meet proposal requirements will be opened. The vendor with the lowest bid will be selected. The selected vendor may be contacted to confirm capacity.

☐ **Best Value** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required - no proposal required.) See Bid Sheet Instructions below for additional instructions.

BID SHEET INSTRUCTIONS

A bid sheet(s) must be submitted in accordance with the "Guideline for Completing a Low Bid Sheet(s)" (available on MDOT's website). The Bid Sheet(s) is located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the address indicated below. The bid sheet(s) must be submitted in a sealed manila envelope, clearly marked **"SEALED BID."** The vendor's name and return address MUST be on the front of the envelope. Failure to comply with this procedure may result in your bid being opened erroneously by the mail room and the bid being rejected from consideration.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER	PROPOSAL/BID DUE DATE	TIME DUE
5	11/24/08	12:00PM

PROPOSAL AND BID SHEET MAILING ADDRESSES

Mail the multiple proposal bundle to the MDOT Project Manager or Other indicated below.

☑ MDOT Project Manager ☐ MDOT Other

Michele Mueller
18101 W Nine Mile Road
Southfield, MI 48075

Mail one additional stapled copy of the proposal to the Lansing Office indicated below.

	Lansing Regular Mail	OR	Lansing Overnight Mail
☑	Secretary, Contract Services Div - B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Secretary, Contract Services Div - B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933
☐	Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least four (4) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100G – Certification of Availability of Key Personnel
5100I – Conflict of Interest Statement

(These forms are not included in the proposal maximum page count.)

Michigan Department of Transportation

SCOPE OF SERVICE
FOR
DESIGN SERVICES

CONTROL SECTION(S): TBA

JOB NUMBER(S): TBA

PROJECT LOCATION: The project is located in Metro and Grand Regions

PROJECT DESCRIPTION:
Work involved in the design of the project consists of: Develop, Engineer, install, optimize and integrate two (2) VII demonstration platforms.

Complete a project including, but not limited to the following:

a) Work with the Project Manager for each task to accomplish all tasks set forth in this procurement.

b) Review the current system design for Metro Region platform.
- **a.** Objective is to evaluate the applications that can be implemented on the current demonstration testbed.
- **b.** Evaluate the geographic area to determine additional other applications that can be added by extending the current demonstration testbed.
- **c.** Develop system acceptance testing procedures.
- **d.** This should form the basis of the system that will be built, assembled and installed.
- **e.** Identify any special easements, impact studies, variances etc necessary for system installation and operation. These should be minimized due to time and cost limitations.
- **f.** The current working system shall remain in place and working to the same level of service it is today while the net network(s) are being installed and if disruption is necessary during switchover the stakeholders shall agree on the time and length of outage to coordinate demonstrations if necessary.

c) Conduct site evaluations.
- **a.** Test existing equipment that will interface with the new equipment.
- **b.** Test any existing or new equipment against other area interferences.

d) MDOT will supply the equipment for this project that is currently installed on the network.
- **a.** Only the items currently installed on the existing network will be supplied by MDOT, any other equipment necessary will have to be supplied by the integrator unless otherwise approved by MDOT project manager.
- **b.** The integrator will be responsible to remove any existing equipment that is not needed upon completion of the testbed and provide that to MDOT.

e) Install equipment at location designed and agreed upon with the stakeholders for the project as identified by MDOT.
- **a.** Provide a site readiness evaluation to determine if the site is ready and suitable for installation for new and existing network configurations.
- **b.** Any power, cable routing facilities etc. necessary for the installations shall be performed by the integrator to interconnect the hardware.
- **c.** Any equipment for the project shall be weather hardened and applicable for the installation locations.
- **d.** Any software or firmware upgrades shall be included in the project for both procurement and installation.

f) Implementation, Ancillary Procurement and Turn Up Services
- **a.** Shall include both implementation and procurement of ancillary equipment.
- **b.** Shall include at a minimum transmission lines, supply and installation, antenna stand off supply and installation, antenna installation, ground cable supply and installation, CAT 5, lightning protection etc.

g) System Optimization
- **a.** Configure, Optimize and Program Equipment
  - **i.** Verify that all equipment is installed and operating properly
  - **ii.** Verify that all electrical and signal levels are properly set once field installation is complete.
  - **iii.** Verify that all communication interfaces between devices is operating properly.
  - **iv.** Features and functionality shall be tested in ensure they are functioning according to design specifications and final configuration.
- **b.** Remove/Dispose of Debris
  - **i.** The integrator shall remove and dispose of any and all debris that is a result of delivery, installation or site improvements.

h) System Maintenance

i) Provide functional acceptance testing
- **a.** Insure that acceptance test procedures are in place
- **b.** Perform functional Acceptance Testing based upon test documents; MDOT shall witness the acceptance testing.
- **c.** The integrator shall be responsible for the resolution of any documented deficiencies.
- **d.** Any deficiencies detected during the final phase will be put on a deficiency list and shall be resolved prior to final system acceptance.

j) Provide as built drawings for all of the installations.

k) Project Finalization
- **a.** Provide equipment manuals
- **b.** Provide warranty documentation

ANTICIPATED SERVICE START DATE: December 1, 2008

ANTICIPATED SERVICE COMPLETION DATE: December 31, 2009

PRIMARY PREQUALIFICATION CLASSIFICATION(S):
Intelligent Transportation Services

***There is no ITS prequalification requirement for subconsultants and the Prime Consultant is responsible for completion of all required work in the contract.**

SECONDARY PREQUALIFICATION CLASSIFICATION(S):
None

DBE REQUIREMENT: N/A

MDOT PROJECT ENGINEER MANAGER:

Michele R. Mueller (Transportation Engineer)
Metro Region
18101 W Nine Mile Road, Southfield, MI 48075
(248) 483-5133
(248) 569-3103
muellerm2@michigan.gov

PURPOSE

The purpose is to Develop, Engineer, install, optimize and integrate two (2) VII demonstration platforms. One platform will be located in the Grand Region to host demonstrations for the Mississippi Valley Conference in July 2009. The second platform will be located in Metro Region to host demonstrations for the ITS Michigan Annual Meeting and Exhibition conference in May 2009. The systems shall share use of the applications, vehicles, and any other associated items.

BACKGROUND

MDOT is continuing to be a leader in the development of Vehicular Infrastructure Integration (VII). VII is determined to increase safety from a vehicular and infrastructure standpoint. MDOT in various locations is working to collect infrastructure data to provide better management of the Departments assets. In addition to the work MDOT is currently doing, it is important to continue the initiative moving forth which means expanding our infrastructure and using existing infrastructure to demonstrate additional VII applications both for motorist and Department assets.

This project includes conceptual, design, installation, and acceptance testing of both networks during and upon completion of the platforms.

The goal for the Grand Region platform is:

- Platform must be operational for demonstration in July 2009
- Provide complete coverage
- Provide approx 3 mile loop with average of 10-12 min per demonstration
- Provide backhaul infrastructure
- Demonstrate following applications
    - Mobility
        - Parking
            - Parking lot reservation
            - Carpool reservation
            - Purchase bus ticket
        - Tolling
        - Signage
        - Signal
        - Transit
        - TMC
        - Alternate Route
    - Workzones
        - Slow down
    - Environmental
        - Emissions
        - Fuel Use
    - Safety
        - Curve speed
        - Emergency vehicle
        - Signal
        - Ramp merge
        - Weather/Surface
        - School zone
- Utilize existing assets on the MDOT network
    - TMC Virtual
        - Pull video from existing WMTMC
    - Bridge de-icing system on the S curve
    - Existing detector sites
    - Poles and power
- Leave network in place and functional to the utmost possible upon conference completion for future VII testing and development.

The goal for the Metro Region platform is:

- Platform must be operational for demonstration in May 2009
- Maximize the use of existing infrastructure
- Easy system “turn on” for future demonstrations
- System must be “open” for other participants to the extent possible but maintain IP where appropriate.
- Demonstration route should be 15-30 minutes
- Potential to expand geographic coverage area where necessary
- Demonstrate the following applications
    - Tolling

- Mileage based user fees
- Enhanced TMC
  - Congestion levels
  - Asset Management
  - Point to point travel times
  - Real time arrival/departure times
  - Screen showing display on demonstration
- Duap
  - Coordinate efforts and data with current project
- Transit
- Freeway courtesy patrol
- CVO permitting
- Environment friendly
  - Carbon footprint
  - Cost of travel
  - Fuel efficiency
- Road weather
  - Receive weather advisory TMC
  - Local forecast
- Integration with MI-Drive
- SCATS congestion levels into TMC

- Utilize existing technology
  - Motorola mesh is existing
  - POC DSRC in POC area
  - Kapsch Technocomm support
  - Nokia Caltrans Safetrip-21 demonstration
  - Parking Carma
  - Ford Sync

- Geographic Area Potential
  - Grand River, I-96, Novi Road, Beck Road
  - Extension to East and West
  - Incorporate 12 Oaks Mall area

- In vehicle considerations for deployment
  - Mesh antenna with GPS
  - Networked laptop
  - Collision avoidance system
  - Teletrac tracking system
  - Video camera mounted to rear view window
  - Improve user interface
  - How and where demonstrate vehicle to vehicle
  - Can vehicle to vehicle be combined with current loop

- Other project considerations
  - Non native third party applications
  - Nomadic devices
  - Integration with CICAS and IVBSS
  - Integration with CVPC partners

- Integration with DARPA
- Applications to smart phones or other systems
- Provide data to 3rd party for trip planning
- Route guidance on Dynamic Message Sign
- Cut River/Mackinac Bridge monitoring system and integration
- Curve Speed Warning System integration in other parts of Metro Region
- St. Clair county emergency border crossing surveillance project
- Enhanced incident detection (simulated incident from demo vehicles)
- Pull back TMC video or snapshot
- Moving maintenance application
- Ambulance linkage
- Pedestrian and Bicycle
- Railroad crossing
- Smart animal crossing

Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards (i.e., Road Design Manual, Standard Plans, Roadside Design Guide, A Policy on Geometric Design of Highways and Streets, Michigan Manual of Uniform Traffic Control Devices, and other emerging standards, concepts etc.).

PROJECT SCHEDULE

The scheduled Consultant's plan completion date for this project is May 1, 2009 or earlier.

CONSULTANT RESPONSIBILITIES

A. **Develop and Maintain Schedule**

Consultant(s) shall provide information on their internal method for scheduling and controlling projects to the Project and Task Manager. Consultant(s) shall deliver and be responsible for the following items for each specified region:

B. **Manage Subconsultants**

Consultant will coordinate, manage, and monitor the performance of subconsultants. The subconsultant coordination meetings will be conducted on an as needed basis.

C. **Prepare Progress Reports and Invoices**

The Consultant Team will prepare monthly progress reports in a format that will include a summary of the work conducted on each task during the previous month, the work anticipated for the upcoming month, problems encountered and required MDOT actions.

D. **Conduct Quality Assurance/Quality Control (QA/QC) Activities**

This task includes conducting QA/QC of all interim and major deliverables. Documents will be checked for understandability, readability, and accuracy. All plan comments and revisions will be documented and tracked.

E. **Maintain Project Records and Files**

The Team will maintain and organize project records, correspondence, files and deliverables for access by MDOT.

MDOT RESPONSIBILITIES

MDOT shall:

A. Provide notice to proceed.

B. Provide primary point of Contact.

C. Complete project scheduled tasks.

D. Grant and assist with site access

E. Provide documentation of existing equipment.

F. Communicate project changes

G. Coordinate access and schedules with the Consultant to complete the deliverables described.

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee:

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

The use of overtime hours is not acceptable unless prior written approval is granted by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager. Reimbursement for overtime hours that are allowed will be limited to time spent on this project in excess of forty hours per person per week. Any variations to this rule should be included in the priced proposal submitted by the Consultant and must have prior written approval by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager.

The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.